IN THE SPECIFICATION

Page 1, before "FIELD OF USE", cancel the paragraph and heading inserted via the Preliminary Amendment submitted 31 October 2003 for revising the Text and, in place of that material, insert the following paragraph with a centered heading:

CROSS REFERENCE TO RELATED APPLICATION

This is a division of U.S. patent application 10/054,653, filed 18 January 2002, now allowed.

Amend paragraph 51 as follows:

[0051] Figs. 12 - 17, including Figs. 14.1 - 14.2, are cross-sectional side views of eight ~~six~~ silicon-gate implementations of the n-channel varactor of Figs. 8a - 8d.

Cancel the revisions made to paragraph 194 via the Preliminary Amendment submitted 9 May 2005 and, in place of those revisions, amend paragraph 194 as follows:

[0194] Rather than being of opposite conductivity types, gate electrode portions 112LA and 112LB can be of the same conductivity type, either p-type or n-type, but at different values of gate electrode dopant concentration N_{POLY} in a variation of the varactor of Fig. 14. If electrode portions 112LA and 112LB are both n-type and thus of opposite conductivity type to body region 100, electrode portion 112LA is doped more heavily ~~lightly~~ n-type than is electrode portion 112LB. Such a variation of the varactor of Fig. 14 is depicted in Fig. 14.1 where net polysilicon dopant concentration N_{POLYA} of n++ electrode portion 112LA exceeds net polysilicon dopant concentration N_{POLYB} of n++ electrode portion 112LB. In accordance with Eq. 33, gate portion 131B meets the requirement of having a higher value of zero-point gate-to-body threshold voltage V_{T0} than gate portion 131A.

The reverse dopant-concentration relationship arises if electrode portions 112LA and 112LB are both p-type and thus of the same conductivity type as body region 100. Per Eq. 33, electrode portion 112LA is doped more lightly ~~heavily~~ p-type than is electrode portion 112LB. Fig. 14.2 illustrates such a further variation of the varactor of Fig. 14 for which polysilicon dopant concentration N_{POLYA} of p++ electrode portion 112LA is less than polysilicon dopant concentration N_{POLYB} of p++ electrode portion 112LB. Since p-n junction

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190 is absent in the variations of Figs. 14.1 and 14.2, ~~this variation,~~ upper metallic gate electrode layer 112U can be deleted in such variations.

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